

**AMENDMENTS TO THE CLAIMS:**

Please cancel claim 20 without prejudice or disclaimer of its subject matter, and amend claims 5, 6, 9, 12, 14, 16, and 19 as indicated below. This listing of claims will replace all prior versions and listings of claims in the application:

**LISTING OF CLAIMS:**

1. (Withdrawn) A semiconductor device comprising:

a semiconductor substrate;

source/drain regions formed in the semiconductor substrate;

a gate insulating film formed on a channel region between the source/drain regions;

a gate electrode formed on the gate insulating film; and

a sidewall insulating film formed on a sidewall surface of the gate electrode,

wherein the gate electrode is made of SiGe, the sidewall insulating film is an insulating film obtained by oxidizing the sidewall surface of the gate electrode, and the sidewall insulating film contains silicon oxide as a main component.

2. (Withdrawn) The semiconductor device according to claim 1, wherein a composition ratio of Ge/Si of the sidewall insulating film is lower than a composition ratio of Ge/Si of the gate electrode.

3. (Withdrawn) A semiconductor device comprising:

a semiconductor substrate in which a SiGe monocrystal layer is formed;

source/drain regions formed in the semiconductor substrate;

a gate insulating film formed on a channel region between the source/drain regions; and

a gate electrode formed on the gate insulating film,

wherein the channel region is formed of the SiGe monocrystal layer, the gate insulating film is an insulating film obtained by oxidizing a surface of the SiGe monocrystal layer, and the gate insulating film is made of silicon oxide as a main component.

4. (Withdrawn) The semiconductor device according to claim 3, wherein a composition ratio of Ge/Si of the gate insulating film is lower than a composition ratio of Ge/Si of the SiGe monocrystal layer.

5. (Currently Amended) A method of manufacturing a semiconductor device, comprising:

forming an insulating film on a semiconductor substrate;

forming a conductive film made of a first semiconductor and a second semiconductor on the insulating film; and

thermal-oxidizing the conductive film in an atmosphere that contains an oxidant for oxidizing the first semiconductor ~~and the second semiconductor~~ and a reductant for reducing ~~the first semiconductor and the second semiconductor~~, to form an oxide film made of the first semiconductor on the conductive film.

6. (Currently Amended) The method of manufacturing a semiconductor device, according to claim 5, wherein the first semiconductor and the second semiconductor are made of ~~different ones of C, Si and Ge.~~

7. (Original) The method of manufacturing a semiconductor device, according to claim 5, wherein the first semiconductor is made of Si and the second semiconductor is made of Ge.

8. (Original) The method of manufacturing a semiconductor device, according to claim 7, wherein the oxidant for oxidizing Si is  $H_2O$ , the reductant for reducing Ge is  $H_2$ , a temperature in the thermal-oxidizing is in a range of from  $0^\circ K$  to  $2,500^\circ K$ , and the atmosphere has a partial pressure ratio between a characteristic curve of equilibrium vapor-hydrogen partial pressure characteristics of  $GeO_2$  and a characteristic curve of equilibrium vapor-hydrogen partial pressure characteristics of  $SiO_2$  within a range of a partial pressure ratio ( $P_{H_2O}/P_{H_2}$ ) of  $H_2O$  to  $H_2$  in  $10^{-1}$  to  $10^{-21}$ .

9. (Currently Amended) The method of manufacturing a semiconductor device, according to claim 7, wherein the oxidant for oxidizing Si is at least one of  $H_2O$ [[,]] and  $CO_2$ , ~~and  $O_2$ ,~~ and the reductant for reducing Ge is at least one of  $H_2$  and  $CO$ .

10. (Original) A method of manufacturing a semiconductor device comprising:  
forming source/drain regions formed in a semiconductor substrate;  
forming a gate insulating film on a channel region between the source/drain regions;

forming a gate electrode made of SiGe on the gate insulating film; and  
thermal-oxidizing the gate electrode in an atmosphere that contains an oxidant for oxidizing Si and a reductant for reducing Ge to form a sidewall insulating film on a sidewall surface of the gate electrode.

11. (Original) The method of manufacturing a semiconductor device, according to claim 10, wherein the oxidant for oxidizing Si is  $H_2O$ , the reductant for reducing Ge is  $H_2$ , a temperature in the thermal-oxidizing is in a range of from  $0^\circ K$  to  $2,500^\circ K$ , and the atmosphere has a partial pressure ratio between a characteristic curve of equilibrium vapor-hydrogen partial pressure characteristics of  $GeO_2$  and a characteristic curve of equilibrium vapor-hydrogen partial pressure characteristics of  $SiO_2$  within a range of a partial pressure ratio ( $P_{H_2O}/P_{H_2}$ ) of  $H_2O$  to  $H_2$  in  $10^{-1}$  to  $10^{-21}$ .

12. (Currently Amended) The method of manufacturing a semiconductor device, according to claim 10, wherein the oxidant for oxidizing Si is at least one of  $H_2O$ [[,]] and  $CO_2$ , ~~and  $O_2$~~ , and the reductant for reducing Ge is at least one of  $H_2$  and  $CO$ .

13. (Original) A method of manufacturing a semiconductor device, comprising:  
forming a monocrystal layer made of at least two kinds of semiconductors on a semiconductor substrate; and  
thermal-oxidizing the monocrystal layer in an atmosphere that contains an oxidant and a reductant as an oxidation seed to form an oxide film made of one of said at least two kinds of semiconductors on a surface of the monocrystal layer.

14. (Currently Amended) The method of manufacturing a semiconductor device, according to claim 13, wherein said at least two kinds of semiconductors are made of ~~different ones of C~~, Si and Ge.

15. (Original) The method of manufacturing a semiconductor device, according to claim 14, wherein the oxidant for oxidizing Si is H<sub>2</sub>O, the reductant for reducing Ge is H<sub>2</sub>, the temperature in the thermal-oxidizing is in a range of from 0°K to 2,500°K, and the atmosphere has a partial pressure ratio between a characteristic curve of equilibrium vapor-hydrogen partial pressure characteristics of GeO<sub>2</sub> and a characteristic curve of equilibrium vapor-hydrogen partial pressure characteristics of SiO<sub>2</sub> within a range of a partial pressure ratio (P<sub>H<sub>2</sub>O</sub>/P<sub>H<sub>2</sub></sub>) of H<sub>2</sub>O to H<sub>2</sub> in 10<sup>-1</sup> to 10<sup>-21</sup>.

16. (Currently Amended) The method of manufacturing a semiconductor device, according to claim 13, wherein the oxidant is at least one of H<sub>2</sub>O[[,]] and CO<sub>2</sub>, ~~and O<sub>2</sub>~~, and the reductant is at least one of H<sub>2</sub> and CO.

17. (Original) A method of manufacturing a semiconductor device comprising:  
forming an SiGe monocrystal layer including a channel region on a semiconductor substrate;  
forming source/drain regions in the SiGe monocrystal layer formed on the semiconductor substrate;

forming a gate insulating film on the channel region between the source/drain regions;  
and  
forming a gate electrode on the gate insulating film,  
wherein the gate insulating film is formed on a surface of the SiGe monocrystal layer by thermal-oxidizing the SiGe monocrystal layer in an atmosphere that contains an oxidant for oxidizing Si, and a reductant for reducing Ge, and the gate insulating film is made of substantially silicon oxide.

18. (Original) The method of manufacturing a semiconductor device, according to claim 17, wherein the oxidant for oxidizing Si is H<sub>2</sub>O, the reductant for reducing Ge is H<sub>2</sub>, a temperature in the thermal-oxidizing is in a range of from 0°K to 2,500°K, and the atmosphere has a partial pressure ratio between a characteristic curve of equilibrium vapor-hydrogen partial pressure characteristics of GeO<sub>2</sub> and a characteristic curve of equilibrium vapor-hydrogen partial pressure characteristics of SiO<sub>2</sub> within a range of a partial pressure ratio (P<sub>H<sub>2</sub>O</sub>/P<sub>H<sub>2</sub></sub>) of H<sub>2</sub>O to H<sub>2</sub> in 10<sup>-1</sup> to 10<sup>-21</sup>.

19. (Currently Amended) The method of manufacturing a semiconductor device, according to claim 17, wherein the oxidant for oxidizing Si is at least one of H<sub>2</sub>O[[,]] and CO<sub>2</sub>, ~~and O<sub>2</sub>~~, and the reductant for reducing Ge is at least one of H<sub>2</sub> and CO.

20. (Cancelled).